

CLAIMS

1. A sample analysis method comprising: a first step of confirming
that a sample is supplied to an analytical tool based on output
5 from the analytical tool; a second step of grasping a level
of the output from the analytical tool in a predetermined time
period after the supply of the sample to the analytical tool
is confirmed, the grasping being performed at least once
including at a time point when the predetermined time period
10 has elapsed; and a third step of performing computation necessary
for the analysis of the sample;

wherein the grasping of the output from the analytical
tool in the first step and the second step is performed based
on output from a double integration circuit which is obtained
15 by inputting the output from the analytical tool into the double
integration circuit;

wherein the first step comprises grasping a level of the
output from the double integration circuit repetitively at first
time intervals each defined by a time period from when the
inputting into the double integration circuit is started till
20 when the outputting from the double integration circuit is
finished; and

wherein, in grasping a level of the output from the double
integration circuit in the second step, a second time interval
25 defined by a time period from when the inputting into the double
integration circuit is started till when the outputting from
the double integration circuit is finished is set longer than

the first time interval.

2. The sample analysis method according to claim 1, wherein
the second step comprises performing the inputting of the output
5 from the analytical tool into the double integration circuit
and the outputting from the double integration circuit
repetitively at the second time intervals, and grasping the
output from the analytical tool at the time point when the
predetermined time period has elapsed.

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3. The sample analysis method according to claim 1, wherein
the first time interval is selected from a range of 10 to 30
msec, whereas the second time interval is selected from a range
of 30 to 300 msec.

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4. The sample analysis method according to claim 1, wherein
the double integration circuit to be used includes a capacitor
for storing the output from the analytical tool as electric
charge and then discharging the stored electric charge and is
20 capable of grasping the output from the analytical tool based
on the discharge time of the capacitor; and

wherein charge time of the capacitor in the first time
interval in the first step is shorter than charge time of the
capacitor in the second time interval in the second step.

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5. The sample analysis method according to claim 4, wherein
the charge time of the capacitor in the first time interval

in the first step is selected from a range of 5 to 15 msec;
and

wherein the charge time of the capacitor in the second
time interval in the second step is selected from a range of
5 15 to 150 msec.

6. The sample analysis method according to claim 1, wherein
the analytical tool to be used includes an electrode for
outputting amount of electron transfer between the electrode
10 and a particular component as electric physical quantity.

7. The sample analysis method according to claim 6, wherein
the analytical tool to be used includes a reagent portion
containing at least one reagent for promoting the electron
15 transfer between the particular component and said electrode,
and an additional electrode for applying, together with said
electrode, voltage to a coexistence system of the sample and
said at least one reagent; and

wherein the electric physical quantity is outputted from
20 the analytical tool as a current value by applying voltage to
the coexistence system using said electrode and the additional
electrode.

8. The sample analysis method according to claim 1, wherein
25 the analytical tool to be used is designed to use blood as the
sample.

9. A sample analysis apparatus to be used with an analytical tool mounted thereto for analyzing a sample supplied to the analytical tool based on output from the analytical tool, the apparatus comprising: a double integration circuit into which
5 the output from the analytical tool is inputted and which outputs a physical quantity related to the input; and a controller for controlling timing at which the output from the analytical tool is inputted into the double integration circuit and timing at which the physical quantity is outputted from the double
10 integration circuit;

wherein the controller performs control so that a time interval from start of the inputting into the double integration circuit till start of the outputting from the double integration circuit becomes longer in a state after the supply of the sample
15 to the analytical tool is confirmed than in a state before the supply of the sample to the analytical tool is confirmed.

10. The sample analysis apparatus according to claim 9, wherein the double integration circuit includes a capacitor for storing
20 the output from the analytical tool as electric charge and then discharging the stored electric charge and is capable of grasping the output from the analytical tool based on the discharge time of the capacitor; and

wherein the controller performs control so that the charge
25 time of the capacitor becomes longer in the state after the supply of the sample to the analytical tool is confirmed than in the state before the supply of the sample to the analytical

tool is confirmed.

11. The sample analysis apparatus according to claim 10, wherein,
when the analytical tool includes an electrode for outputting
5 an electric physical quantity, the apparatus further comprises
a switch for selecting a state in which the double integration
circuit is directly or indirectly connected to ground or a state
in which the double integration circuit is connected to the
electrode; and

10 wherein the controller controls the switch to control
timing at which the output from the analytical tool is inputted
into the double integration circuit and timing at which the
physical quantity is outputted from the double integration
circuit.